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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,425	10/23/2001	Bryan Kevin Clark	3675P2374	2548

23504 7590 03/27/2003

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EXAMINER

PHAM, HOA Q

ART UNIT PAPER NUMBER

2877

DATE MAILED: 03/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/002,425

Applicant(s)

CLARK, BRYAN KEVIN ✓

Examiner

Hoa Q. Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "**light beam**" in claims 1, 13, 16, 17 and the "**scanning system**" in claims 1, 13, 16, 17 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:
- a. Page 15, line 10 and page 16, line 16, the number "21" should be changed to -26--.
 - b. Page 15, line 21, the number "13" should be changed to -23--.
 - c. Page 17, line 6, the number "16" should be changed to -15--.
 - d. Page 17, line 7, the number "15" should be changed to -16--.
 - e. Page 20, line 3, the beam "22" is not shown in figures.

These are some examples; applicant is required to correct all of the minor informalities such as typos, grammars, inconsistent of terms (and/or numerals).

Claim Rejections - 35 USC § 112

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3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Specification, page 20, teaches "the partially reflective surface produces a Fabry-Perot optical resonant cavity with surface under inspection"; however, claims 4 and 18 recites that the partially reflective surface is "a coating deposited on the surface under inspection". Thus, it is not clear how an optical resonant cavity is produced when there is no space between the partially reflective surface and the surface under inspection.

4. Claims 4 and 18 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. As mentioned above.

5. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "said device" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over White (3,901,597) in view of PRIOR ART (Figure 1 of the present invention).

Regarding claims 1, 2, 3, 5, 13, 14, 15, 16, and 17, White discloses a laser distance measuring device comprises an illuminating system (10) for producing a beam to the surface (15) under inspection, a detector (18) for measuring the reflected light from the surface, a spatially reflective surface (12, 20, 52), positioned between the surface under inspection and illuminating system forming a resonator with the surface under inspection, and scanning system (30) for moving the beam across the surface under inspection (see figures 1-8, column 2, lines 57-59, column 4, lines 5-24). White does not explicitly teach that the device could be used for inspecting defects on the surface that exceeding a predetermined height. However, such a feature is known in the art as taught by Figure 1 of the present invention (PRIOR ART). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the basis device of White for detecting the defects as taught by PRIOR ART if additional measurement is desired.

Regarding claims 4, 6, 18, White teaches that the white reflector (14) located near the surface (15) under inspection, thus it would have been obvious to deposit a coating layer on the surface (15) or an optical element to form a reflector because they are function in the same manner.

Regarding claims 7-10, see positioner (61) and controller (66-76) in figure 8 of White.

Regarding claims 11 and 21, using a plurality detector such as quadrant detectors for detecting the height or tilt of a surface is well known in the art, thus it would have been obvious to replace the detector of White by a plurality of detectors for the purpose of detecting the height or tilt of the surface under inspection if additional measurement is desired.

Regarding claims 12 and 23, the element (14) is considered as a second tier.

Regarding claims 19-20, 22, figure 8 of White shows a controller (61) for controlling the partially reflective surface (52).

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Following references are relative to surface inspection device: Batchelder et al (5,220,403), Clark (6,522,471), Pernick (4,334,780 and 4,465,371), Monchalin (4,659,224).

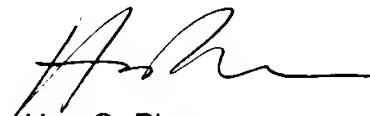
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa Q. Pham whose telephone number is (703) 308-4808. The examiner can normally be reached on 6:30 AM to 5 PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (703) 308-4881. The fax phone numbers

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for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Hoa Q. Pham
Primary Examiner
Art Unit 2877

HP
March 22, 2003